2000776

The Boeing Company
Rocketdyne Propulsion & Power
6633 Canoga Avenue
P.O. Box 7922
Canoga Park, CA 91309-7922

CERTIFIED MAIL

May 16, 2002
In reply refer to 2002RC1871

BOEING

Gerard Abrams
Calif. Environmental Protection Agency
Dept. of Toxic Substances Control
Region 1
Facility Permitting Branch
10151 Croydon Way, Suite 3
Sacramento CA 95827-2106

Subject: Santa Susana Field Laboratory Corrective Action Program Quarterly Progress Reports for EPA ID Numbers CAD093365435 (Rocketdyne), CA1800090010 (NASA) and CAD000629972 (DOE)

Dear Mr. Abrams:

The Boeing Company, Rocketdyne (Rocketdyne) has enclosed the following progress reports as required by Hazardous Waste Facility Post-Closure Permits for Rocketdyne and NASA at the Santa Susana Field Laboratory (SSFL). In addition, Rocketdyne has included a progress report for the DOE Corrective Action sites in Area IV. Rocketdyne has submitted the reports in the format as it appears in Attachment I of the Rocketdyne and NASA permits. This reporting period is from February 16, 2002 through May 15, 2002.

Should you have any comments, please do not hesitate to let me know. I can be reached at (818) 586-5695.

Sincerely,

Art Lenox
Environmental Remediation

AJL:dr
Enclosures

(SHEA-095389)

cc:

A. Elliott/NASA	(with enclosures)
D. Hambrick/Montgomery Watson	(with enclosures)
T. Chauvel/DTSC	(with enclosures)
S. Baxter/DTSC	(with enclosures)
P. Batarseh/DTSC	(with enclosures)
P. Bailey/DTSC	(with enclosures)
K. Baker/DTSC	(with enclosures)
M. Lopez/DOE/OAK	(with enclosures)
J. Beach/EPA	(with enclosures)
Committee to Bridge the Gap	(with enclosures)
R. Marshall/CSUN, Oviatt Library	(with enclosures)
D. Redfield/Simi Valley Library	(with enclosures)
J. Metzler/LA Public Library, Platt Branch	(with enclosures)

BOEING

Santa Susana Field Laboratory
RFI and CMS Projects
Quarterly Progress Report
EPA ID No.CAD 093365435 (Rocketdyne)

Rocketdyne Project Manager:	Art Lenox
Contractor Project Manager:	Dixie Hambrick
Report Period:	February 16 – May 15, 2002

1. PROGRESS MADE THIS REPORT PERIOD

Soil sampling was not performed this period at Rocketdyne RCRA Facility Investigation (RFI) sites. To date, approximately 1065 soil vapor (1154 analyses) and 2745 soil matrix/surface water samples (5763 analyses) have been collected from Rocketdyne locations during the RFI program (Table 2). (Table 1, summary of current sampling only contains groundwater samples collected this period.)

Field work for the near-surface groundwater investigation continued this period, conducted by Montgomery Watson Harza (MWH). Water levels were measured bimonthly through April and in May at the three new shallow piezometers installed at Rocketdyne sites during October 2001. Transducers installed at representative Rocketdyne shallow piezometer locations were also monitored. Water levels were measured at all wells one time in February and again in March to document the site-wide response. The new Rocketdyne piezometers were developed and a total of 11 groundwater samples were collected at 9 Rocketdyne piezometers during April 2002. Groundwater sample analysis was conducted by Ceimic Laboratories, a California-certified laboratory located in Rhode Island. Laboratory results are pending. To date, approximately 129 groundwater samples (225 analyses) have been collected from Rocketdyne locations during the RFI program (Table 2). Preparation of an update to the August 2001 Draft Shallow Groundwater Technical Memorandum (TM) describing Fall 2000/Spring 2001 investigation findings began this period. The draft TM will be updated to include Fall 2001/Spring 2002 results. A Spring and Seep Sampling Work Plan was submitted to DTSC.

DTSC, Rocketdyne, and MWH met several times this period to discuss the SSFL building review approach, near-surface groundwater and soil investigations, risk assessment issues, DTSC Hazardous Materials Laboratory (HML) data validation of the RFI samples, and the RFI report schedule.

A draft Advanced Propulsion Test Facility (APTF) RFI Site report was submitted to DTSC for review. A meeting was held with DTSC to discuss the draft APTF report.

Discussion continued with DTSC regarding requirements for the implementation of the Area I Landfill investigation.

Validation of recent soil samples and conducting a program quality assurance (QA) review of soil sampling data are ongoing. DTSC validation of the RFI data continued.

Revision of the draft Surficial Media OU SRAM Addendum is ongoing based on additional DTSC review comments.

2. SUMMARY OF FINDINGS

Shallow groundwater levels declined this period following only limited rain events in February 2002.

3/4 SUMMARY OF PROBLEMS/ACTIONS TAKEN

Boeing is continuing to monitor the State of Arizona audit evaluation of the Columbia Analytical Services (CAS) laboratory. CAS has provided analytical support for the RFI. Further discussion with DTSC regarding the audit findings was conducted this period. DTSC continued an independent evaluation of the audit and CAS RFI data.

5. PROJECT ACTIVITY NEXT PERIOD

Boeing will be involved with the following RFI activities during the next period:

- Continue DTSC SSFL building inspections
- Conduct limited step-out sampling and data validation for Rocketdyne sites
- Monitor near-surface water levels monthly in the new Rocketdyne piezometers and download transducer data
- Continue preparation of the updated near-surface groundwater TM
- Conduct spring and seep sampling
- Revise the draft APTF site report
- Implement Area I Landfill (SWMU 4.2) Work Plan at surface depressions
- Finalize the draft Surficial OU SRAM Addendum

6. PERSONNEL CHANGES

None.

7. SUMMARY OF CONTACTS

None.

8. TREATMENT SYSTEM EFFECTIVENESS

No soil remediation treatment systems are in place or operational at this time.

9. DATA REPORTS SUBMITTED

Advanced Propulsion Testing Facility RCRA Facility Investigation Report, Santa Susana Field Laboratory, Ventura County, California. *Draft.* March.

Spring and Seep Sampling Work Plan, Santa Susana Field Laboratory, Ventura County, California. March.

Table 1
Rocketdyne Sampling Summary
February 16, 2002 - May 15, 2002

UNIT	Facility	MATRIX	Total Samples	Total Analyses	VOC, 8260B	TPH, 8015/BM	Metals, 6010B/7471A	Arsenic	Perchlorate, 300M	1-4 Dioxane, 8260SIM	Gross Alpha/Beta, 900.0	Gamma Spec, 901.1	Tritium, 906.0
Areas I, III, and IV	Various (9 wells)	GW	11	17	7	1	2	2	1	1	1	1	1
Total Near-Surface Groundwater			11	17	7	1	2	2	1	1	1	1	1
TOTAL			**11**	**17**	**7**	**1**	**2**	**2**	**1**	**1**	**1**	**1**	**1**
S = Soil	V = Vapor												
W = Water	GW = Near-Surface Groundwater												
Note - includes QA samples (water, soil, vapor); does not include samples on hold.													

Table 2
RFI Sampling Summary
May 1996 - May 15, 2002

RFI Soil Matrix Sampling Analysis Summary

OWNER/OPERATOR	Total Samples	Total Analyses	VOA, 8260	TPH, 8015	VOA, 8021A	SVOA, 8270SIM	SVOA, 8270	Metals, 6010/7000	Mercury, 7471A	Methyl Mercury	Silver, 7761	Lead	Beryllium	Hex Cr, 7196	Flouride, 340.2	ANIONS, 300	PH, 9040/9045	PCBs, 8082/8082	PCBs, 1668	Perm, ASTMD19	Perchlorate, 300M	Tributyl Sn	Dioxin, 8290	Dioxin, 16198	Hydrazine	Ordnance, 8330	SPLP, 1312	Asbestos	LIPIDS	TOC	Arsenic	PAH, 8310A	1-4 Dioxane
Rocketdyne	2745	5763	166	1086	645	644	92	916	59	3	10	2	2	84	176	179	737	121	18	193	260	2	120	10	14	130	78	0	2	8	1	2	11
NASA	749	1153	59	359	153	83	18	130	72	2	20	0	0	10	10	11	64	40	8	16	0	0	50	11	0	1	5	5	0	3	0	0	13
DOE	212	724	5	133	50	94	10	135	0	0	1	0	0	2	17	7	105	36	1	0	32	0	52	8	0	4	6	32	0	0	0	0	0
Total	3706	7640	242	1578	849	821	120	1181	131	5	31	2	2	96	202	197	906	199	27	209	292	2	222	21	14	135	89	37	2	11	1	2	24

Notes:
Soil, water only - no vapor
No Tank 203 samples (LUFT)
No Bell Canyon samples
Includes all Ogden/MWH samples at RFI sites - June 96 thru present
No Eco Samples
No background samples
No samples on hold

RFI Soil Vapor Sampling Analysis Summary

OWNER/OPERATOR	Total Active SV Samples	Total Dilutions	Total Active SV Analyses	Total PSV Samp/Anal	Total SV Samples	Total SV Analyses
Rocketdyne	1057	102	1148	8	1065	1154
NASA	363	19	394	14	397	408
DOE	30	0	30	0	30	30
	1470	121	1570	22	1492	1592

Notes:
Includes HGS, CAL analyses (no TEG)
Includes all Ogden/MWH samples at RFI sites - June 96 thru present
All analyses performed by Method 8260, modified for vapor
Includes Gore analyses, no dilutions required

RFI Biotic Sampling Analysis Summary

OWNER/OPERATOR	Total Samples	Total Analyses	SVOC, 8270/SIM	Metals, 6010B/7471A	PCBs, 1668	Dioxin, 16198	LIPIDS
DOE	0	0	0	0	0	0	0
NASA	25	67	12	24	13	13	25
Rocketdyne	20	42	8	0	12	2	20
Total	45	129	20	24	25	15	45

Notes:
Includes all Ogden/MWH samples at RFI sites - June 96 thru present

RFI Near-Surface Groundwater Sampling Analysis Summary

OWNER/OPERATOR	Total Samples	Total Analyses	VOA, 8260	TPH, 8015	SVOA, 8270SIM	Metals, 6010/7000	Arsenic	PCBs, 8082	Perchlorate, 300M	1-4 Dioxane, 8260SIM	Dioxin, 8290	Gross Alpha/Beta, 900.0	Gamma Spec, 901.1	Tritium, 906.0	Nitrate	TDS	Ordnance, 8330	Hex Cr, 7196
Rocketdyne	129	226	113	17	17	16	3	6	16	17	6	6	1	1	0	0	5	1
NASA	52	80	49	12	4	3	0	0	0	7	2	1	0	0	1	1	0	0
DOE	27	96	22	10	6	0	0	1	1	0	0	15	15	15	0	0	0	0
Total	208	302	184	39	27	27	3	7	17	24	8	22	16	16	1	1	5	1

Notes:
Includes all Ogden/MWH samples at RFI sites - June 96 thru present
Gross Alpha/Beta analyses from 2001 also included on table.

Santa Susana Field Laboratory
RFI and CMS Projects
Quarterly Progress Report
EPA ID No. CA1800090010 (NASA)

Rocketdyne Project Manager:	Art Lenox
Contractor Project Manager:	Dixie Hambrick
Report Period:	February 16 – May 15, 2002

1. PROGRESS MADE THIS REPORT PERIOD

Soil sampling was not performed this period at NASA RCRA Facility Investigation (RFI) sites. To date, approximately 397 soil vapor (408 analyses) and 749 soil matrix/surface water samples (1153 analyses) have been collected from NASA locations during the RFI program (Table 2). (Table 1, summary of current sampling only contains groundwater samples collected this period.)

Field work for the near-surface groundwater investigation continued this period, conducted by Montgomery Watson Harza (MWH). Transducers installed at representative NASA shallow piezometer locations were monitored. Water levels were also measured at all wells one time in February and again in March to document the site-wide response. A total of 5 groundwater samples were collected at 4 NASA piezometers during April 2002. Groundwater sample analysis was conducted by Ceimic Laboratories, a California-certified laboratory located in Rhode Island. Laboratory results are pending. To date, approximately 52 groundwater samples (80 analyses) have been collected from NASA locations during the RFI program (Table 2). Preparation of an update to the August 2001 Draft Shallow Groundwater Technical Memorandum (TM) describing Fall 2000/Spring 2001 investigation findings began this period. The draft TM will be updated to include Fall 2001/Spring 2002 results. A Spring and Seep Sampling Work Plan was submitted to DTSC.

DTSC, Rocketdyne, and MWH met several times this period to discuss the SSFL building review approach, near-surface groundwater and soil investigations, risk assessment issues, DTSC Hazardous Materials Laboratory (HML) data validation of the RFI samples, and the RFI report schedule.

Validation of recent soil samples and conducting a program quality assurance (QA) review of soil sampling data are ongoing. DTSC validation of the RFI data continued.

Revision of the draft Surficial Media OU SRAM Addendum is ongoing based on additional DTSC review comments.

2. SUMMARY OF FINDINGS

Shallow groundwater levels declined this period following only limited rain events in February 2002.

3/4 SUMMARY OF PROBLEMS/ACTIONS TAKEN

Boeing is continuing to monitor the State of Arizona audit evaluation of the Columbia Analytical Services (CAS) laboratory. CAS has provided analytical support for the RFI. Further discussion with DTSC regarding the audit findings was conducted this period. DTSC continued an independent evaluation of the audit and CAS RFI data.

5. PROJECT ACTIVITY NEXT PERIOD

Boeing will be involved with the following RFI activities during the next period:

- Continue DTSC SSFL building inspections
- Conduct limited step-out sampling and data validation for NASA sites
- Download transducer data
- Continue preparation of the updated near-surface groundwater TM
- Conduct spring and seep sampling
- Prepare the draft PLF site report
- Finalize the draft Surficial OU SRAM Addendum

6. PERSONNEL CHANGES

None.

7. SUMMARY OF CONTACTS

None.

8. TREATMENT SYSTEM EFFECTIVENESS

No soil remediation treatment systems are in place or operational at this time.

9. DATA REPORTS SUBMITTED

Spring and Seep Sampling Work Plan, Santa Susana Field Laboratory, Ventura County, California. March.

Table 1
NASA Sampling Summary
February 16, 2002 - May 15, 2002

UNIT	Facility	MATRIX	Total Samples	Total Analyses	VOC, 8260B	TPH, 8015/BM	SVOC, 8270CSIM
Area II	Various (4 wells)	GW	5	7	5	1	1
Total Near-Surface Groundwater			**5**	**7**	**5**	**1**	**1**
TOTAL			**5**	**7**	**5**	**1**	**1**
S = Soil	V = Vapor						
W = Water	GW = Near-Surface Groundwater						
Note - includes QA samples (water, soil, vapor); does not include samples on hold.							

Table 2
RFI Sampling Summary
May 1996 - May 16, 2002

RFI Soil Matrix Sampling Analysis Summary

OWNER/OPERATOR	Total Samples	Total Analyses	VOA, 8260	TPH, 8015	VOA, 8021A	SVOA, 8270SIM	SVOA, 8270	Metals, 6010/7000	Mercury, 7471A	Methyl Mercury	Silver, 7761	Lead	Beryllium	Hex Cr, 7196	Flouride, 340.2	ANIONS, 300	PH, 9040/9045	PCBs, 8082/8082	PCBs, 1668	Form, ASTMD19	Perchlorate, 300M	Tributyl Sn	Dioxin, 8290	Dioxin, 1613B	Hydrazine	Ordnance, 8330	SPLP, 1312	Asbestos	LIPIDS	TOC	Arsenic	PAH, 8315A	1-4 Dioxane
Rocketdyne	2745	5768	166	1066	646	644	92	916	59	3	10	2	2	84	175	179	737	121	18	193	350	2	120	10	14	190	78	0	2	8	1	2	11
NASA	749	1153	69	359	153	83	16	130	72	2	20	0	0	10	10	11	54	40	6	15	0	0	50	11	0	1	5	5	0	3	0	0	13
DOE	212	724	5	139	50	94	10	136	0	0	1	0	0	2	17	7	105	38	1	0	32	0	52	0	0	4	5	32	0	0	0	0	0
Total	3706	7640	242	1578	849	821	120	1181	131	5	31	2	2	96	202	197	906	199	27	209	282	2	222	21	14	195	89	37	2	11	1	2	24

Notes:
Soil, water only - no vapor
No Tank 203 samples (LUFT)
No Bell Canyon samples
Includes all Ogden/MWH samples at RFI sites - June 96 thru present
No Eco Samples
No background samples
No samples on hold

RFI Soil Vapor Sampling Analysis Summary

OWNER/OPERATOR	Total Active SV Samples	Total Dilutions	Total Active SV Analyses	Total PSV Samp/Anal	Total SV Samples	Total SV Analyses
Rocketdyne	1057	102	1145	8	1065	1154
NASA	369	19	394	14	397	408
DOE	30	0	30	0	30	30
	1470	121	1570	22	1492	1592

Notes:
Includes HGS, CAL analyses (no TEG)
Includes all Ogden/MWH samples at RFI sites - June 96 thru present
All analyses performed by Method 8260, modified for vapor
Includes Gore analyses, no dilutions required

RFI Biotic Sampling Analysis Summary

OWNER/OPERATOR	Total Samples	Total Analyses	SVOC, 8270SIM	Metals, 6010B/7471A	PCBs, 1668	Dioxin, 1613B	LIPIDS
DOE	0	0	0	0	0	0	0
NASA	25	67	12	24	13	13	25
Rocketdyne	20	42	8	0	12	2	20
Total	45	129	20	24	25	15	45

Notes:
Includes all Ogden/MWH samples at RFI sites - June 96 thru present

RFI Near-Surface Groundwater Sampling Analysis Summary

OWNER/OPERATOR	Total Samples	Total Analyses	VOA, 8260	TPH, 8015	SVOA, 8270SIM	Metals, 6010/7000	Arsenic	PCBs, 8082	Perchlorate, 300M	1-4 Dioxane, 8260SIM	Dioxin, 8290	Gross Alpha/Beta, 900.0	Gamma Spec, 901.1	Tritium, 906.0	Nitrate	TDS	Ordnance, 8330	Hex Cr, 7196
Rocketdyne	129	225	113	17	17	16	3	6	16	17	6	6	1	1	0	0	5	1
NASA	52	80	48	12	4	3	0	0	0	7	2	1	0	0	1	1	0	0
DOE	27	93	22	10	6	8	0	1	1	0	0	15	15	15	0	0	0	0
Total	208	398	184	39	27	27	3	7	17	24	8	22	16	16	1	1	5	1

Notes:
Includes all Ogden/MWH samples at RFI sites - June 96 thru present
Gross Alpha/Beta analyses from 2001 also included on table.

Santa Susana Field Laboratory
RFI and CMS Projects
Quarterly Progress Report
EPA ID No. CAD000629972 (Department of Energy)

Rocketdyne Project Manager:	Art Lenox
Contractor Project Manager:	Dixie Hambrick
Report Period:	February 16 – May 15, 2002

1. PROGRESS MADE THIS REPORT PERIOD

Limited soil sampling was performed this period based on results of previous sampling efforts and DTSC's comprehensive RCRA Facility Investigation (RFI) review. Montgomery Watson Harza (MWH) collected a total of two soil matrix samples from one DOE site during this reporting period (Table 1). Soil matrix sample analysis was conducted by Ceimic Laboratories, a California-certified laboratory located in Rhode Island. Soil vapor sample analysis was conducted at an onsite mobile laboratory by Centrum Analytical Laboratories (also California-certified for soil matrix analysis). To date, approximately 30 soil vapor (30 analyses) and 212 soil matrix/surface water samples (724 analyses) have been collected from DOE locations during the RFI program (Table 2).

Field work for the near-surface groundwater investigation continued this period. Water levels were measured bimonthly through April and in May at the 20 new shallow piezometers installed at DOE sites during October 2001. Transducers installed at representative DOE shallow piezometer locations were also monitored. Water levels were measured at all wells one time in February and again in March to document the site-wide response. The new DOE piezometers were developed and a total of 27 groundwater samples were collected at 9 DOE piezometers during April 2002. Groundwater sample analysis was conducted by Ceimic Laboratories, a California-certified laboratory located in Rhode Island. Laboratory results are pending. To date, approximately 27 groundwater samples (93 analyses) have been collected from DOE locations during the RFI program (Table 2). Preparation of an update to the August 2001 Draft Shallow Groundwater Technical Memorandum (TM) describing Fall 2000/Spring 2001 investigation findings began this period. The draft TM will be updated to include Fall 2001/Spring 2002 results. A Spring and Seep Sampling Work Plan was submitted to DTSC.

DTSC, Rocketdyne, and MWH met several times this period to discuss the SSFL building review approach, near-surface groundwater and soil investigations, risk assessment issues, DTSC Hazardous Materials Laboratory (HML) data validation of the RFI samples, and the RFI report schedule.

The draft Building 56 Landfill Work Plan was completed and submitted to DTSC for review. Preparation of the draft Building 65, Metals Laboratory Clarifier RFI site report began.

Validation of recent soil samples and conducting a program quality assurance (QA) review of soil sampling data are ongoing. DTSC validation of the RFI data continued.

Revision of the draft Surficial Media OU SRAM Addendum is ongoing based on additional DTSC review comments.

Infiltration monitoring continued at FSDF this period. Validation of the FSDF Interim Measure sampling data was completed.

2. SUMMARY OF FINDINGS

Shallow groundwater levels declined this period following only limited rain events in February 2002. Soil data from the B363 leach field samples have not yet been received from the laboratory.

3/4 SUMMARY OF PROBLEMS/ACTIONS TAKEN

Boeing is continuing to monitor the State of Arizona audit evaluation of the Columbia Analytical Services (CAS) laboratory. CAS has provided analytical support for the RFI. Further discussion with DTSC regarding the audit findings was conducted this period. DTSC continued an independent evaluation of the audit and CAS RFI data.

5. PROJECT ACTIVITY NEXT PERIOD

Boeing will be involved with the following RFI activities during the next period:

- Monitor near-surface water levels monthly in the new DOE piezometers and download transducer data
- Continue preparation of the updated near-surface groundwater TM
- Conduct spring and seep sampling
- Continue to prepare DOE RFI site reports
- Finalize the draft Surficial OU SRAM Addendum
- Continue FSDF infiltration monitoring
- Complete a draft Interim Measure Report for DTSC review

6. PERSONNEL CHANGES

None.

7. SUMMARY OF CONTACTS

None.

8. TREATMENT SYSTEM EFFECTIVENESS

No soil remediation treatment systems are in place or operational at this time.

9. DATA REPORTS SUBMITTED

RCRA Facility Investigation Work Plan Addendum Amendment Building 56 Landfill (SWMU 7.1) Investigation, Santa Susana Field Laboratory, Ventura County, California. *Draft.* March.

Spring and Seep Sampling Work Plan, Santa Susana Field Laboratory, Ventura County, California. March.

Table 1
DOE Sampling Summary
February 16, 2002 - May 15, 2002

UNIT	Facility	MATRIX	Total Samples	Total Analyses	VOC, 8260B	TPH, 8015/BM	SVOC, 8270CSIM	PCBs, 8082	Metals, 6010B/7471A	Perchlorate, 300M	1-4 Dioxane, 8260SIM	Gross Alpha/Beta, 900.0	Gamma Spec, 901.1	Tritium, 906.0	PH, 9040/9045
Area IV AOC - B363 Leachfield	B363 Leachfield	S	2	8	0	2	2	0	2	0	0	0	0	0	2
Total Soil			**2**	**8**	**0**	**2**	**2**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**2**
Area IV	Various (9 wells)	GW	27	93	22	10	6	1	8	1	0	15	15	15	0
Total Near-Surface Groundwater			**27**	**93**	**22**	**10**	**6**	**1**	**8**	**1**	**0**	**15**	**15**	**15**	**0**
TOTAL			**29**	**101**	**22**	**12**	**8**	**1**	**10**	**1**	**0**	**15**	**15**	**15**	**2**
S = Soil	V = Vapor														
W = Water	GW = Near-Surface Groundwater														
Note - includes QA samples (water, soil, vapor); does not include samples on hold.															
*DOE Leachfield Samples															

Table 2
RFI Sampling Summary
May 1996 - May 15, 2002

RFI Soil Matrix Sampling Analysis Summary

OWNER/OPERATOR	Total Samples	Total Analyses	VOA, 8260	TPH, 8015	VOA, 8021A	SVOA, 8270SIM	SVOA, 8270	Metals 6010/7000	Mercury 7471A	Methyl Mercury	Silver, 7761	Lead	Beryllium	Hex Cr, 7196	Fluoride, 340.2	ANIONS, 300	PH, 9040/9045	PCBs, 8080/8082	PCBs, 1668	Form, ASTMD19	Perchlorate, 300M	Tributyl Sn	Dioxin, 8290	Dioxin, 1613B	Hydrazine	Ordnance, 8330	SPLP, 1312	Asbestos	LIPIDS	TOC	Arsenic	PAH, 8315A	1-4 Dioxane
Rocketdyne	2746	6763	166	1066	646	644	92	916	59	3	10	2	2	84	175	179	737	121	18	193	250	2	120	10	14	130	76	0	2	8	1	2	11
NASA	749	1153	69	359	153	63	18	130	72	2	20	0	0	10	10	11	64	40	6	15	0	0	50	11	0	1	5	5	0	3	0	0	13
DOE	212	724	5	133	50	94	10	135	0	0	1	0	0	2	17	7	105	36	1	0	32	0	52	0	0	4	6	32	0	0	0	0	0
Total	3706	7640	242	1578	849	821	120	1181	131	5	31	2	2	96	202	197	906	199	27	209	282	2	222	21	14	135	89	37	2	11	1	2	24

Notes.
Soil, water only - no vapor
No Task 203 samples (LUFT)
No Bell Canyon samples
Includes all Ogden/MWH samples at RFI sites - June 96 thru present
No Eco Samples
No background samples
No samples on hold

RFI Soil Vapor Sampling Analysis Summary

OWNER/OPERATOR	Total Active SV Samples	Total Dilutions	Total Active SV Analyses	Total PSV Samp/Anal	Total SV Samples	Total SV Analyses
Rocketdyne	1057	102	1146	8	1065	1154
NASA	383	19	394	14	397	408
DOE	30	0	30	0	30	30
	1470	121	1570	22	1492	1592

Notes'
Includes HGS CAL analyses (no TEG)
Includes all Ogden/MWH samples at RFI sites - June 96 thru present
All analyses performed by Method 8260, modified for vapor
Includes Gore analyses no dilutions required

RFI Biotic Sampling Analysis Summary

OWNER/OPERATOR	Total Samples	Total Analyses	SVOC, 8270CSIM	Metals, 6010B/7471A	PCBs, 1668	Dioxin, 1613B	LIPIDS
DOE	0	0	0	0	0	0	0
NASA	25	87	12	24	13	13	25
Rocketdyne	20	42	8	0	12	2	20
Total	45	129	20	24	25	15	45

Notes
Includes all Ogden/MWH samples at RFI sites - June 96 thru present

RFI Near-Surface Groundwater Sampling Analysis Summary

OWNER/OPERATOR	Total Samples	Total Analyses	VOA, 8260	TPH, 8015	SVOA, 8270SIM	Metals, 6010/7000	Arsenic	PCBs 8082	Perchlorate, 300M	1-4 Dioxane, 8260SIM	Dioxin 8290	Gross Alpha/Beta 900 0	Gamma Spec, 901 1	Tritium, 906 0	Nitrate	TDS	Ordnance, 8330	Hex Cr, 7196
Rocketdyne	129	225	113	17	17	16	3	6	16	17	5	6	1	1	0	0	5	1
NASA	52	80	49	12	4	3	0	0	0	7	2	1	0	0	1	1	0	0
DOE	27	98	22	10	6	8	0	1	1	0	0	15	15	15	0	0	0	0
Total	208	398	184	39	27	27	3	7	17	24	8	22	16	16	1	1	5	1

Notes
Includes all Ogden/MWH samples at RFI sites - June 96 thru present
Gross Alpha/Beta analyses from 2001 also included on table